

Analysis of Environmental Samples – Select BT Agents

Purpose

To provide guidelines on the collection and transport of environmental samples to the OPH Central Laboratory for testing

Policy

All biothreat environmental samples must be collected by an epidemiologist or a public safety officer. Contact the State Epidemiologist at 504-568-5005 and the OPH Central Laboratory Molecular Bacteriology Unit at 504-568-2373 or General Bacteriology Unit at 504-568-7683 prior to shipment.

The OPH Central Laboratory can test environmental samples for the following agents: *Bacillus anthracis*, *Brucella* spp., *Clostridium botulinum* and/or botulinum toxin, *Francisella tularensis*, Ricin Toxin, Staphylococcal Enterotoxin B (SEB), and *Yersinia pestis*.

Specimen Collection, Handling, Storage

1. Acceptable Samples:
 - ◆ Paper
 - ◆ Powder
 - ◆ Bone, Hair, Soil
 - ◆ Swabs, cotton, polyester (e.g. Dacron), rayon or foam swab; Do not use cotton swabs if PCR testing is requested.
 - ◆ Wipes (non-cotton gauze, polyester blend (e.g. Handi-wipes))
 - ◆ Soil, Water, Air
 - ◆ Plant material (grass, wood; in envelope for Ricin)
2. All samples should be screened for Explosives, Radiation and Chemicals prior to delivery to the OPH Central Laboratory for bacteriological testing.
3. Oversized items (bigger than a small shoebox) should not be sent to the OPH Central Laboratory for testing. These items will block airflow in the Biosafety Hoods and may cause laboratory contamination. If powder is visible, moisten a swab or wipe with sterile water and gently swab or wipe the area.
4. Do not use glass for collection or transport of samples.

Procedure

Step	Action
1	Don non-powdered examination gloves over the gloves that are part of standard PPE and clothing.
2	Collect and place the sample in either a sterile bag or appropriately sized container; seal the bag or the container. Remember, these containers have to fit in a Biosafety Hood or they will not be acceptable samples.
3	Clean the outside of the sealed bag with a 0.5-0.6% (5,000-6,000ppm) sodium hypochlorite solution and rinse with 70% ethanol. NOTE: Typical household bleach contains approximately 5.25-6% sodium hypochlorite. The disinfection solution is made by adding 1 part household bleach to 9 parts water (a 1:10 dilution).
4	Place the cleaned, sealed bag in another unused, self-sealing bag. Place the double bagged specimen into a third self-sealing bag.
5	Contact the State Police HazMat Hotline at 877-925-6595 and obtain a Communication and Information Report Tracking Number (CIR) for the sample. No samples will be accepted without a CIR number.
6	Fill out the Laboratory Response Network Forms (see Appendix 4a, 4b, 4c for sample forms).
7	Contact the State Epidemiologist at 504-568-5005 and the OPH Central Laboratory Molecular Bacteriology Unit at 504-568-2373 or General Bacteriology Unit at 504-568-7683 prior to shipment.
8	Follow official procedures for chain-of-custody documentation for all samples obtained (see Appendix 10).